

ABSTRACT

METHOD AND SYSTEM FOR DETERMINING THE DENSITY AND  
DIMENSIONAL CHARACTERISTICS OF AN OBJECT AND  
APPLICATION TO CHECKING OF NUCLEAR FUEL PELLETS DURING  
MANUFACTURING

The system for automatic determination of the density of an object (100) comprises:

- an apparatus (2) to determine a significant dimension (x) of said object (100),  
5            - an apparatus (30) to determine the intensity (I) of a photon beam attenuated by passing through said object (100),  
              - an acquisition, processing and analysis apparatus (200),  
10            - means (70, 72, 80, 82, 84, 86, 88) of transporting the object (100),  
              - first means (74, 76, 78) of adjusting the position of the object (100),  
              - second means (90, 92, 94, 96, 98) of adjusting  
15            the position of the object (100).

The method for using the system described above includes steps to calibrate components of apparatuses 2 and 30, and steps to actually determine the significant dimension of objects (100), that are done on each  
20            object (100) in said set of objects.

FIGURE 2.